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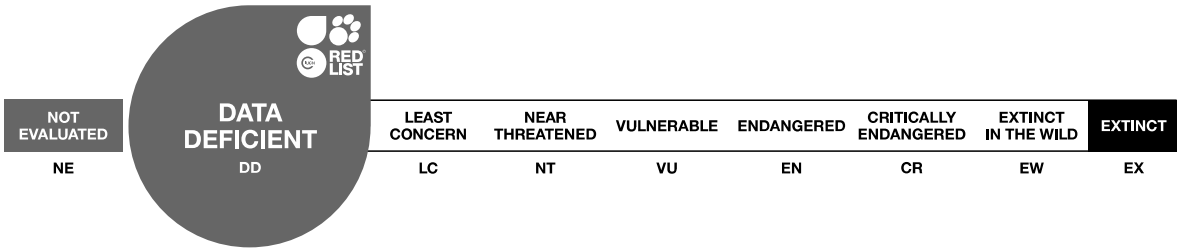
Language: English

Rymosia azorensis

Assessment by: Nunes, R. & Borges, P.A.V.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Diptera	Mycetophilidae

Scientific Name: *Rymosia azorensis* Chandler & Ribeiro, 1995

Assessment Information

Red List Category & Criteria: Data Deficient ver 3.1

Year Published: 2020

Date Assessed: March 28, 2018

Justification:

Rymoza azorensis is an endemic species of the Azores (Portugal), that was described from S. Miguel island. This species was recorded in a single area in the vicinity of hot springs, in a site that is currently highly degraded. From the historical data, this species had a very small Extent of Occurrence (8 km^2) and Area of Occupancy (8 km^2), and it is possible that this species has declined in the past, as a result of human activity. The present situation of this species needs to be further assessed, and further research is needed into its population, distribution, threats, ecology and life history. Conservation/restoration of native habitats and humid areas could also potentially aid this species' conservation. However, based upon the lack of recent in data regarding this species population, distribution, threats and ecology, this species is assessed as Data Deficient (DD).

Geographic Range

Range Description:

Rymoza azorensis is an Azorean-endemic fly species that was described from the island of S. Miguel (Azores, Portugal) (Borges *et al.* 2010). It is known from a single site, Furnas, a disturbed location with hot springs. Based on the old historical data (Frey 1945), the Extent of Occurrence (EOO) would be ca. 8 km^2 and the Area of Occupancy (AOO) is also ca. 8 km^2. However, there is no recent information regarding the distribution of this species.

Country Occurrence:

Native, Extant (resident): Portugal (Azores)

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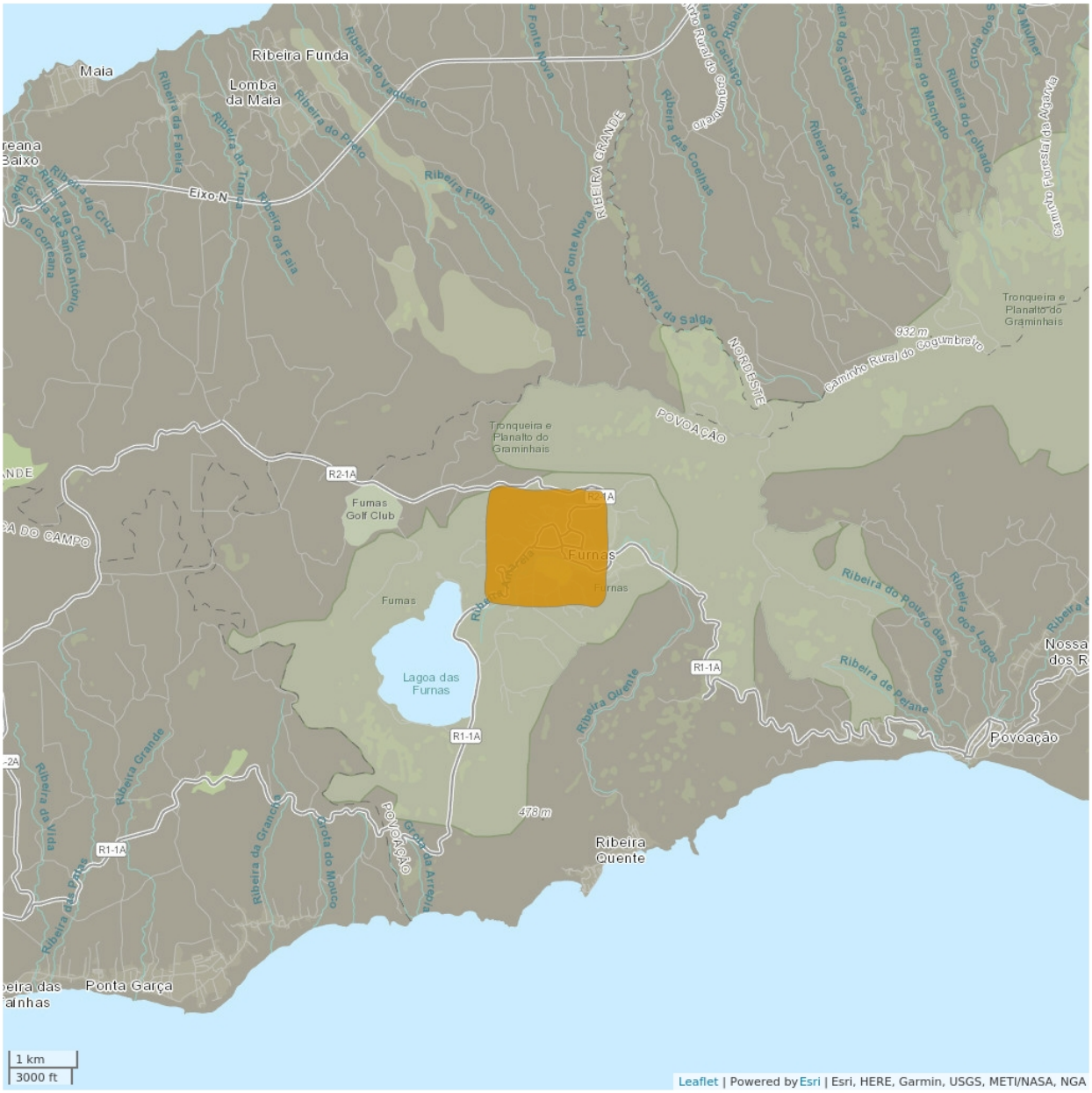
Distribution Map

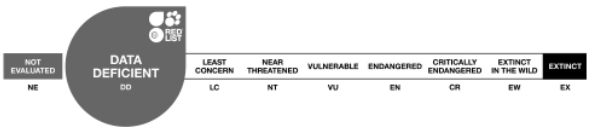


Legend

EXTANT (RESIDENT)

Compiled by:

Azorean Biodiversity Group 2018



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.

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Population

No current population size estimates exist for this species.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

The ecology and traits of this species are unknown. Mycetophilidae occur mainly in humid areas like moist forests (McAlpine *et al.* 1981), but are also quite common in swamps, or live in the moister parts of heath and open grassland, and some species have been recorded on mosses and liverworts. The larvae of many species live in fleshy or woody fungi or in dead wood and usually feed on fungi, especially the fruiting bodies, but also spores and hyphae. Nevertheless, the larvae of some species, while still being associated with fungi, are at least partly predatory (McAlpine *et al.* 1981). A few species are monophagous or polyphagous, but the majority of species are restricted to particular genera or families of fungi. Pupation usually takes place in the ground but some species pupate in the host fungus (McAlpine *et al.* 1981). Where the larvae are known, species of the genus *Rymosiaa* develop in soft terrestrial fungi, like agarics (Chandler and Ribeiro 1995).

Systems: Terrestrial

Threats (see Appendix for additional information)

A lack of information regarding the present status of this species precludes an assessment of potential threats. Nevertheless, the ecology of other members of the Mycetophilidae family suggests that this species might be affected by future habitat declines as a consequence of climate change (Ferreira *et al.*, 2016) and increased droughts. Given that this species was collected in the vicinity of hot springs, future violent geothermal events might as well affect it. Additionally, *Rymosia azorensis* was collected from a highly disturbed site, so past and present human disturbance and land use changes, coupled with habitat degradation by invasive species might have also affected this species.

Conservation Actions (see Appendix for additional information)

The species is not protected by regional law. The present situation of this species needs to be further assessed, and further research is needed into its population, distribution, threats, ecology and life history. From what is known, conservation of natural habitats and other wet areas, together with problematic species control, could potentially aid this species' conservation. This species is known to have been present in one area that is now highly disturbed, but included in the Natural Park of S. Miguel.

Credits

Assessor(s): Nunes, R. & Borges, P.A.V.

Reviewer(s): Russell, N.

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Disclaimer

External Resources

For Supplementary Material, and for Images and External Links to Additional Information, please see the Red List website.

Appendix

Habitats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.4. Forest - Temperate	Resident	Suitable	Yes
5. Wetlands (inland) -> 5.12. Wetlands (inland) - Geothermal Wetlands	Resident	Suitable	-

Threats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.1. Unspecified species	Ongoing	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
10. Geological events -> 10.1. Volcanoes	Future	Unknown	Very rapid declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Future	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
11. Climate change & severe weather -> 11.2. Droughts	Future	Unknown	Slow, significant declines	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		

Conservation Actions in Place

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: No
Systematic monitoring scheme: No
In-place land/water protection
Occurs in at least one protected area: Yes

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Conservation Actions Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Action Needed
2. Land/water management -> 2.1. Site/area management
2. Land/water management -> 2.2. Invasive/problematic species control

Research Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Research Needed
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km²): 8
Continuing decline in area of occupancy (AOO): Unknown
Extreme fluctuations in area of occupancy (AOO): Unknown
Estimated extent of occurrence (EOO) (km²): 8
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): Unknown
Continuing decline in number of locations: Unknown
Extreme fluctuations in the number of locations: Unknown
Lower elevation limit (m): 200
Upper elevation limit (m): 400
Population
Continuing decline of mature individuals: Unknown
Extreme fluctuations: Unknown
Population severely fragmented: Unknown

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